Application No. 10/534,695 After Final Office Action of April 30, 2007 Docket No.: 1592-0155PUS1

AMENDMENTS TO THE CLAIMS

1-9. (Cancelled)

10. (Currently Amended) An epitaxial growth method comprising: supporting a substrate for growth with a substrate supporter, forming a <u>III-V</u> compound semiconductor layer comprising 3 or 4 elements on the substrate for growth by metal organic chemical vapor deposition, polishing the substrate so that an angle of gradient is <u>not in the range from above 0.03° to below 0.04° 0.00° to 0.03° or 0.04° to 0.10°</u> with respect to (100) direction in an entire effective area of the substrate, and forming the compound semiconductor layer to be 0.5μm thick or more on the substrate by using the substrate for growth,

wherein the 3 or 4 elements are selected from the group consisting of AlGaAs, AlInAs, AlInGaAs and combinations thereof, and

wherein the dislocation density of the substrate is 5000 cm⁻² or less.

- 11. (Previously Presented) The epitaxial growth method as claimed in claim 10, further comprising: forming a buffer layer on the substrate for growth, and forming the compound semiconductor layer on the buffer layer.
 - 12. (Cancelled)
 - 13. (Cancelled)

2

- 14. (Currently Amended) The epitaxial growth method as claimed in claim 10 12, wherein the compound semiconductor layer comprises AlInAs is an InGaAs layer or an InAlAs layer.
- 15. (Currently Amended) The epitaxial growth method as claimed in claim 11 13, wherein the compound semiconductor layer comprises AlInAs is an InGaAs layer or an InAlAs layer.
- 16. (Currently Amended) The epitaxial growth method as claimed in claim 10 12, wherein the substrate for growth is a semiconductor crystal substrate having a dislocation density of 5000cm⁻² or less.
- 17. (Currently Amended) The epitaxial growth method as claimed in claim 11 13, wherein the substrate for growth is a semiconductor crystal substrate having a dislocation density of 5000cm⁻² or less.
- 18. (Previously Presented) The epitaxial growth method as claimed in claim 14, wherein the substrate for growth is a semiconductor crystal substrate having dislocation density of 5000cm⁻² or less.

3

19. (Previously Presented) The epitaxial growth method as claimed in claim 15, wherein the substrate for growth is a semiconductor crystal substrate having dislocation density of 5000cm⁻² or less.

- 20. (Previously Presented) The epitaxial growth method as claimed in claim 16, wherein the substrate for growth is an InP substrate.
- 21. (Previously Presented) The epitaxial growth method as claimed in claim 17, wherein the substrate for growth is an InP substrate.
- 22. (Previously Presented) The epitaxial growth method as claimed in claim 18, wherein the substrate for growth is an InP substrate.
- 23. (Previously Presented) The epitaxial growth method as claimed in claim 19, wherein the substrate for growth is an InP substrate.
- 24. (Currently Amended) A substrate for epitaxial growth used for an epitaxial growth method in which a compound semiconductor layer comprising 3 or 4 elements is formed on the substrate for growth by metal organic chemical vapor deposition, wherein an angle of gradient is not in the range from above 0.03° to below 0.04° 0.00° to 0.03° or 0.04° to 0.10° with respect to (100) direction in an entire effective area of the substrate.

4 MSW/VP/sh

Application No. 10/534,695 Docket No.: 1592-0155PUS1
After Final Office Action of April 30, 2007

25. (Previously Presented) The substrate for epitaxial growth as claimed in claim 24, wherein the substrate is a semiconductor crystal substrate having dislocation density of 5000cm⁻² or less.

- 26. (Previously Presented) The substrate for epitaxial growth as claimed in claim 24, wherein the substrate is an InP substrate.
- 27. (Previously Presented) The substrate for epitaxial growth as claimed in claim 25, wherein the substrate is an InP substrate.

5 MSW/VP/sh